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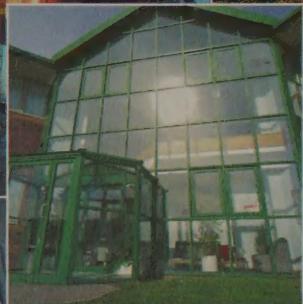
GOOD HEALTH IS
GOOD BUSINESS

GOOD HEALTH IS GOOD BUSINESS

employers' guide



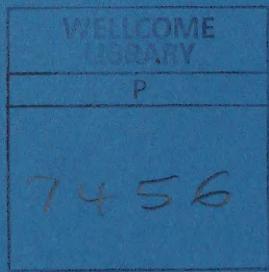
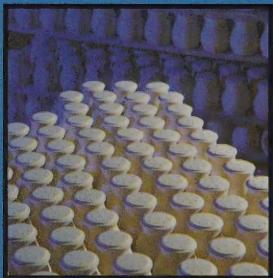
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Health & Safety
Executive



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Welcome to Phase 2 of the Health and Safety Executive's largest ever campaign: *Good Health is Good Business*. Put simply, it is a campaign to stop people being made ill by their work. As a manager you have responsibilities to manage your activities to prevent work-related ill health, and it is HSE's responsibility to help you do this. As well as avoiding the unnecessary illness and suffering that work can cause, *Good Health is Good Business* will help you make improvements that can benefit your business in other ways.

There is a wide range of workplace health risks, as this guide explains, and they can all be managed in a similar way. To help show this, Phase 1 of *Good Health is Good Business* focused on three very common risks: noise, musculoskeletal risks and respiratory sensitisers. Phase 2 focuses on work-related dermatitis, and work-related cancer, including asbestos. Whether or not these are specific problems in your workplace, I would urge you to use the campaign to your advantage.

You can take part in HSE's campaign by reading this booklet, getting more information, and taking action. This booklet will tell you what you need to start with. During this phase of the campaign we will be continuing to run seminars and workshops to help you at sector, regional and national levels. Look out for adverts and articles in the press.

Remember, good health means good business for your business.

Frank Davies

FRANK J DAVIES CBE OStJ
Chairman, Health and Safety Commission

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INFORMATION SERVICE

18 DEC 1996

Wellcome Centre for Medical Science

MAKE HEALTH YOUR BUSINESS

A special video from HSE

The Health and Safety Executive (HSE) has produced a special video to support the *Good Health is Good Business* campaign. The video features Sir John Harvey-Jones and shows how occupational health risks have been managed in a number of different companies in a range of industries.

The measures needed to control health risks can often be simple and inexpensive. The video describes how workplace health risks can be identified and controlled by following a simple four-stage approach:

- check the workplace to find out if you have a problem
- decide what to do
- take action
- check what you have done

To buy a copy of the HSE video *Make health your business* complete the form in the centre pages of this booklet and return to CFL Vision, PO Box 35, Wetherby LS23 7EX.



“Everything in business depends on your people. If you look after your people there's a sporting chance they'll look after you.”

HEALTH RISK MANAGEMENT

Preventing work-related illness

Every year, an estimated 2.2 million people suffer from ill health caused or made worse by work. Some 13 million working days are lost as people take time off because work has made them ill.

So, no matter what business you are in, work-related illness should concern you as a manager. It can occur in any size of company - even the smallest. Indeed, the smaller your company the greater the impact will be if your staff are made ill. Work-related illness can also take many different forms.

The problems may go unnoticed, slowly getting worse over time until the illness caused becomes permanent and possibly disabling. In some instances problems can even lead to death.

This unnecessary effect on employees' health costs British

industry several hundred million pounds every year. Do you know what work-related illness costs you in sickness absence; lost production; retraining; administration; or increased insurance premiums, to name but a few? But both the pain and suffering and financial losses can be avoided by companies who understand the causes of work-related ill health and take steps to manage and prevent it.

The Health and Safety Executive is running a major campaign to help you as a manager manage the health risks in your workplace. This guide introduces health risk management and points you in the direction of further help and advice. Managing health risks need not be difficult or costly - you can do it - and you will be taking part in the HSE campaign.

Prevent ill health caused by work today and start protecting your staff and your profits.

WHAT IS WORK-RELATED ILLNESS?

Work-related ill health, also known as occupational ill health, describes any illness an employee suffers because of the hazards they have been exposed to at work. Work-related illness is often viewed as the domain of specialists. Actually it is your responsibility as an employer to manage your activities and stop your employees' being made ill by their work.

As you can see from the examples in the chart opposite, there is a wide range of health risks capable of causing a variety of illnesses. This list is not exhaustive - if you do not recognise a risk it does not mean your staff are safe. You can use this list to start thinking about the types of problems you might find in your workplace. Remember - even smaller businesses such as garages, hairdressers and farms are at risk.



HEALTH RISK**ILL-HEALTH EFFECTS**

Handling heavy or awkward loads.
Poor work postures; repetitive or
forceful movements; a combination -
eg repetitive assembly and
inspection work.

Musculoskeletal disorders - eg
bad backs; pains, strains and
sprains; 'RSI'; upper limb
disorders.

Breathing in and handling hazardous
substances - eg asbestos; solvents;
isocyanates, wood, grain and silica
dust; sheep dips; other chemicals.

Cancer; asthma; bronchitis;
fibrosis; poisoning; dermatitis;
burns.

High noise levels - eg from noisy
tools and machinery.

Deafness; tinnitus.

Vibration - eg from hand-held
tools; regularly driving vehicles.

Vibration white finger with pain
in fingers and loss of grip; low
back pain from whole body
vibration.

Exposure to radiations - eg from
x-ray work; ultraviolet radiation
from prolonged outdoor work;
infra-red; lasers.

Burns; skin complaints; eye
damage; cancer.

Exposure to biological agents -
viruses, bacteria, fungi and
parasites - eg in health care,
agricultural and laboratory work.

Mild sickness to serious diseases
- eg orf; hepatitis B; legionnaires'
disease.

Stressors - eg excessive workload
or work pace; conflicting
priorities.

Can contribute to high blood
pressure; heart disease;
depression.

MANAGING THE HEALTH RISKS

Whatever the health risk, the way to prevent ill health is the same - good management. Health risk management is about identifying and controlling risks before they cause problems and lead to losses. The stages are outlined below:

1 FIND OUT IF YOU HAVE A PROBLEM

- Take a fresh look at your workplace to find out what hazards your employees face. Watch them at work - look at how they work and what they work with.
- Talk to your staff, find out if their work is affecting their health - remember, even trivial complaints can become major problems.
- Look at your sickness absence records for clues.
- Get advice from suppliers on working with their materials. Look at the hazard information on safety data sheets and manufacturers' and suppliers' guidance. Remember - not all hazards to health are obvious.

2 DECIDE WHAT ACTION TO TAKE

- Look at the hazards and decide who might be at risk and how: carry out a risk assessment.
- Decide whether existing precautions are adequate - should more be done?
- Identify what steps need to be taken to remove or control the risks.
- Decide which health risks should be given priority for action.

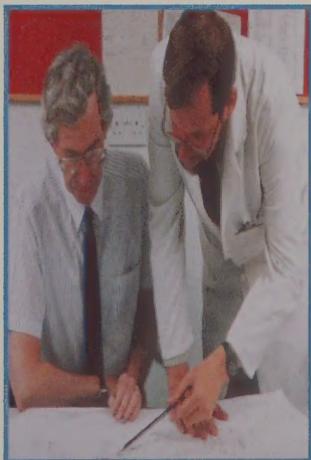
3 TAKE ACTION

- Make the improvements you decide are necessary.

4 CHECK WHAT YOU HAVE DONE

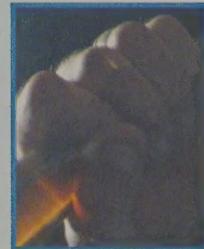
- Check that any targets you set to reduce health risks have been reached.
- Make sure control measures, eg ventilating plant, automated manual handling equipment, are maintained and working properly.
- Check sickness absence records for improvements and discuss the changes with your employees.
- Ensure personal protective equipment is used properly and maintained in good working order.

Of course, good management is an ongoing process. You will need to revisit these steps when you make changes in your workplace, for example when considering new equipment or processes. Good health risk management will anticipate problems rather than deal with them after you have made an investment and find your staff becoming ill.



CASE STUDIES

In one Midlands factory, excess material from a component casting process was removed using a large pedestal grinder. The operator had to hold each component firmly and then push it against the grinder and its support. Vibration to the hands was extremely hazardous, mainly because the support was poorly built. A new support was constructed which brought the amount of vibration well within acceptable levels.



By reviewing their use of chemicals, a fish processing company helped safeguard their workers' health and made cost savings at the same time. Following the Control of Substances Hazardous to Health (COSHH) Regulations, they stopped using chemicals that were not essential to the processing, and found less hazardous alternatives to replace others. They not only reduced the risk of ill health, but saved money and storage space by using a smaller range of chemicals.

A company with loud machines wanted to reduce noise levels to below 90dBA as required by the Noise at Work Regulations. The workforce played a major part in the design and development of noise enclosures which were fitted around noisy machines. The noise levels were checked to see if the target had been reached - it had. The workforce felt that management had demonstrated they were serious about improving working conditions.



Operators assembling transmission housings for helicopters used a ratchet spanner to screw in steel pegs. Several operators reported elbow and upper arm pain. The task involved a lot of forceful, awkward and repetitive movements, which could have lead to serious upper limb disorders.

The company introduced pneumatic nut runners costing about £130. These screwed in the pegs with a simple squeeze of the trigger. As well as reducing the reports of pain and stopping the problems worsening, the company found the unit assembly time nearly halved, and the product quality improved.

A company installed ventilation equipment to control the dust made when weighing out powdered chemicals. To make sure the equipment was effectively reducing dust levels, the air flow rates of the ventilation equipment and airborne levels of the chemicals handled were routinely measured. A fall in air flow rates or high levels of dust triggered an investigation to find out why the control equipment was not working properly.



MacFish Ltd, Fraserburgh, Scotland

The company has grown with regard to health and safety since it became involved in the HSE *Lighten the Load* campaign in 1994. There has been investment in plant and equipment which has helped to reduce the manual handling of products at various stages of production. The workforce has been made aware of issues which affect them and they have been helpful in raising and implementing safety initiatives. The growth has been testing at times and success has been achieved on numerous occasions.

MacFish Ltd was proud to participate in the *Lighten the Load* campaign and is looking forward to improving health and safety in our workplace. The company will be involved in future campaigns.

John Tallieu - Health and Safety Advisor

Northampton General Hospital

Running in parallel with the HSE's campaign has been the 'Health at Work in the NHS' - a health promotion programme to encourage healthier lifestyles and safer conditions for patients and NHS staff. Once again, core elements focused on health and safety issues; policies and risk management strategies, leading to the Trust gaining two awards in the Health Promoting Trust Awards Scheme in 1995.

These successes have only been possible with the backing and commitment of top management, the acceptance of line management health and safety responsibilities and co-operation of all 3000 hospital staff.

A new Health and Safety Action Plan has been published. This will finalise the purchase of manual handling equipment, such as patient hoists, and promote and implement a new fire training programme for all staff.

Keith Backer - Health, Safety and Fire Officer



The Cheese Company, Appleby Creamery, Cumbria

The Cheese Company is committed to risk reduction and supports HSE's *Good Health is Good Business* campaign. Our positive attitude to tackle occupational health across the company has helped to reduce accidents by 40 per cent over the past three years against an increase in productivity of 25 per cent.

A comprehensive programme of risk assessments carried out, some 900 across ten sites, identified the key areas where we should invest our time and money to achieve a reduction in accidents and improve efficiency.

A broad range of projects have been progressed.

Examples include: the installation of mechanical lifting assistance through the use of vacuum lifting heads at our Taw Valley Creamery in Devon and Oswestry packing facility in Shropshire. In both instances, 20kg of cheese blocks are being transferred from pallets to conveyers. End of line scissors lifts and adjustable pallet trucks are being installed at our Appleby Creamery in Cumbria, and similar equipment is expected to be utilised at other sites when trials are complete. At our Cheshire site, Reeces of Malpas, projects are underway to upgrade cheese milling and pressing operations, reducing pulling and handling.

Stilton Cheese packing at the Tuxford and Tebbutt Creamery, Leicestershire, a traditionally multi-handling operation, has been modernised by the installation of a cheese sorting and boxing equipment. Staff have also received information and training on improved ways to 'paste, dress and finish' Stiltons, which has greatly reduced the risk of injuries.

Gordon Bell, Health, Safety and Environmental Manager



WORK-RELATED DERMATITIS

The problem

Few people realise what a serious and debilitating disease work-related dermatitis can be until it happens to them. It is caused by the skin coming into contact with certain substances at work. Because of this it is sometimes called 'occupational contact dermatitis'. An estimated 84,000 people have dermatitis caused or made worse by work, resulting in 132,000 lost working days each year. This costs employers up to £20m a year.

The risks and ill-health effects

Symptoms of the condition can be redness, itching, scaling and blistering of the skin. If it gets worse the skin can crack and bleed and the dermatitis can spread all over the body. It can be extremely painful - bad enough to keep people off work and serious enough to force them to change jobs.

How quickly it develops really depends on the substance, its strength or potency, how long and how often it touches the skin. Some things might cause symptoms from almost the first day of contact with the skin. Some might take weeks, months or even years to cause work-related dermatitis. Sometimes it can be caused by a combination of factors - for instance the combination of wet hands and detergents.

But with a little care most cases can be prevented.

Why employers should take action

The Management of Health and Safety at Work Regulations 1992 and the Control of Substances Hazardous to Health Regulations 1994 require employers to assess the risk of dermatitis and to take action to prevent it. Also, dermatitis costs money - from sickness absence, loss of production, staff turnover, retraining, etc.

High-risk industries and processes

Occupational dermatitis occurs in virtually all industries and business sectors. But the industries where it is most widespread are:

- Hairdressing/Beauty Care
- Cleaning
- Engineering
- Rubber
- Agriculture/Horticulture
- Catering
- Construction
- Printing
- Offshore
- Health services

Substances as diverse as cement, shampoos, detergents, metal working fluids, lubricants and oils, certain chemicals and printing inks, and the sap from certain agricultural crops can cause occupational dermatitis.

What you can do to prevent dermatitis at work

- Follow the steps in HSE's
Health risk management guide
- Refer to key HSE publications
for more guidance
- **Regulations**
The Control of Substances Hazardous to Health Regulations 1994.
- **Guidance**
Guidance for employers and employees - new occupational dermatitis leaflet
- **Video**
Rash decisions

See order form centre pages

CASE STUDIES

Effective management of work-related dermatitis

A company manufacturing vehicle engines started to receive complaints about skin irritation from machine operators involved in grinding operations. This was thought to be due to the effects of the metalworking fluids used. The factory manager consulted a different metal working fluid supplier, who gave advice on the overall management of metalworking fluids including the correct mixing of water-based fluids and how to test the condition of the fluid. The company also installed an automatic fluid mixer and started to use a new high quality metalworking fluid. As a result the problem of skin irritation disappeared. The changes resulted in considerable financial benefits to the company: effective management of the fluid meant that much less of it was used, the machine down time was reduced because fewer fluid changes were needed and there was less waste to dispose of.



ASBESTOS

The problem: asbestos-related diseases

Breathing in air containing asbestos dust can cause asbestos-related diseases. These are mainly cancers of the chest and lungs. Asbestos-related diseases are currently killing an estimated 3,000 people a year in Great Britain. This number is expected to go on rising into the next century.

There is no cure for asbestos-related diseases.

There is usually a long delay between first exposure to asbestos and the onset of disease: this can vary between 15 and 60 years. The vast majority of people now dying were exposed to asbestos during the 1950s and 1960s, when the use of asbestos in the UK was widespread. This was before the current strict regulations on work with asbestos, including bans on the supply and use of the most dangerous types of asbestos, were introduced.

The risks

If it is intact, asbestos material does not pose a risk to health. It will pose a risk to health only if asbestos fibres are released into the air, for instance if the asbestos is damaged or worked on. That is why it is important to manage asbestos materials.

The more asbestos dust inhaled the greater the risk to health.

Why employers should take action

The Control of Asbestos at Work Regulations 1987 require employers to prevent, or where that is not reasonably practicable, reduce to as low a level as is reasonably practicable, their employees' exposure to asbestos. The cost of cleaning up a building contaminated by asbestos through careless work can be very high. Preventing employees' exposure will also reduce the likelihood of compensation claims.

High-risk industries and processes

A quarter of the people now dying from asbestos-related diseases worked in the building trade: they were carpenters, joiners, electricians, plumbers etc. People in these trades may still be at risk when they carry out refurbishment, repairs or maintenance work on buildings that contain asbestos. Other workers, not normally associated with the building trade, may also disturb asbestos. For instance, gas fitters, computer cabling installers, fire alarm installers, window blind fitters and telecommunications engineers could also be at risk.

People may also be exposed to asbestos in some manufacturing processes that use raw asbestos. It is still used in some friction materials such as brake pads and clutch linings, so businesses involved with the repair and servicing of vehicles need to take care to ensure that their employees are not exposed to asbestos dust when they are carrying out work on such items.

What you can do to prevent asbestos-related diseases

- Follow the steps in HSE's *Health risk management guide*
- Refer to key HSE publications for more guidance
- **Regulations**
The Control of Asbestos at Work Regulations 1987
- **Guidance**
For workplace building owners, managers and employers:
Managing asbestos in
- **workplace buildings**
Control of Asbestos at Work: Approved Code of Practice
- **Employee leaflets**
Asbestos and you
Asbestos dust: the hidden killer! Essential advice for building maintenance, repair, and refurbishment workers
HSE pocket card: Asbestos alert for building maintenance, repair and refurbishment workers.
see order form centre pages

CASE STUDIES

Effective management of asbestos

A large council decided to carry out a survey of all its buildings to check for the presence of asbestos and to assess its condition. As a result of the survey the council now keeps a central record of the location of all asbestos materials. All repair and maintenance work is also co-ordinated centrally, and workers are informed if the material they are working on contains asbestos. As an additional safeguard, all asbestos materials are labelled. The council therefore has a system in place to prevent workers from unknowingly working on asbestos materials.



WORK-RELATED CANCER

Work-related cancers can often cause premature death. It has been estimated that 4% of all cancer deaths may have a work-related cause. This amounts to about 6,000 deaths a year (of

which 3,000 are caused by exposure to asbestos). Some of the agents (excluding asbestos) associated with occupational cancers are described below:

Carcinogenic substances

Certain chemicals which are used in the workplace have the potential to cause cancer and in most cases the law requires them to carry a label to say so. The risk of a carcinogen actually causing cancer will depend on a number of things -

- its potency.
- its concentration (either in the atmosphere or the raw material)
- its form (some substances may be more likely to cause cancer in certain forms - for instance hard wood dust is a carcinogen, but solid hard wood is not)
- how it is used
- the level of exposure
- the duration of exposure

It is essential that any substances or work processes which may cause cancer are strictly controlled. The Control of Substances Hazardous to Health Regulations (COSHH) require employers either to prevent or control exposure. The HSE issues various publications which give advice on the control of carcinogens, the most important of which is the COSHH General Approved Code of Practice and the Carcinogens Approved Code of Practice.

- Guidance
COSHH: The new brief guide for employers - IND(G) 136 L (rev)

See order form centre pages

VIDEO ORDER FORM

I would like to buy a copy of:

Make health your business (UK6314) at £25.00

Special video on management of health risks featuring
Sir John Harvey-Jones

Rash decisions (UK4350) at £49.50

Work related dermatitis - its causes, effects and prevention

A matter of life and breath (UK4296) at £49.50

Work-related asthma - the causes, effects and how to prevent it

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(please give at least 14 days notice)

Rash decisions (UK4350) at £13.50

A matter of life and breath (UK4296) at £13.50

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Please send me a free HSE video catalogue.

VIDEO ORDER FORM

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0 7176 1169 8	<i>Protecting your health at work</i> IND(G)62 (packs of 10)	£5.00		£
ASBESTOS				
0 7176 1179 5	<i>Managing Asbestos in Workplace Buildings</i> IND(G)223 (packs of 10)	£5.00		£
0 11 882037 0	<i>The control of asbestos at work: Control of Asbestos at Work Regulations 1987. Approved code of practice</i>	£5.00		£
WORK-RELATED DERMATITIS				
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WORK-RELATED CANCER				
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0 7176 1189 2	<i>COSHH: The new brief guide for employers</i> IND(G)136 (packs of 10)	£5.00		£
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0 7176 0454 3	<i>Noise guides 1&2: legal duties of employers, designers, manufacturers etc. to prevent damage to hearing</i>	£3.50		£
0 11 885430 5	<i>Noise guides 3-8: noise assessment information and control</i> Special price if bought together	£3.00 £5.50		£
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Ultraviolet radiation

Excessive exposure of the skin to ultraviolet radiation can increase the risk of developing skin cancer. Most of us are exposed to ultraviolet rays from sunlight and normally this does not pose a problem, but people whose jobs keep them outdoors for a significant part of the working day, such as agricultural or construction workers, market gardeners, outdoor activity workers and some public service workers are most at risk.

Some people are more liable to skin cancers than others. People with fair sensitive skin which burns easily are at most risk. The greatest hazard occurs at the times of the day and periods of the year when the sun is most intense. Outdoor workers should therefore be advised not to shed clothing while working outdoors in the

summer particularly in the three to four hours around the middle of the day. Other precautionary measures include wearing clothing to cover exposed areas (e.g. hats, long-sleeved shirts) and the use of sunscreens to protect parts of the body that are not easy to shade from the sun.

Employers have a key role to play in helping to get the message across to employees. They can encourage a change in behaviour by advising the precautionary measures to be taken while working in the sun.

■ Further information

The Keep your top on leaflet

Single copies available free
from HSE Books

see order form centre pages



Ionising radiations

The risk of developing cancer is the most important effect of exposure to ionising radiations. Data from HSE's Central Index of Dose Information (CIDI) shows over 50,000 people are designated as classified persons under the Ionising Radiation Regulations 1985. These are individuals who have a greater risk of receiving significant exposure. The National Radiological Protection Board has estimated that a further 200,000 individuals receive some occupational exposure.

Ionising radiations may take the form of electromagnetic rays (such as x-rays and gamma rays) or particles (such as alpha and beta particles). They occur naturally (eg as radon gas and its decay products) as well as being produced artificially. Risks arise from exposure to external radiation sources and from the intake of radioactive materials into the body, usually by inhalation.

There are a large number of sectors where work with ionising radiation is carried out, either directly or using instruments containing radioactive resources. These include: the nuclear industry; medical/dental uses; non-destructive testing; mining (particularly non-coal mining) and other workplaces in areas prone to radon.

The Ionising Radiation Regulations 1985 require employers to ensure exposure is kept as low as reasonably practicable and does not exceed specified dose limits. Employers are also required to take a wide range of measures, including the provision of information, instruction, training and supervision.

■ Further information

HSE Information Sheet
Ionising Radiation Protection Series No 1 - Industrial radiography
HSE Information Sheet
Ionising Radiation Protection Series No 2 - Radiation doses - assessment and recording
HSE Information Sheet
Ionising Radiation Protection Series No 3 - Portable nuclear moisture / density gauges in the construction industry
HSE leaflet *Radon in the workplace*

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NOISE AT WORK

The problem

Noise-induced hearing loss is one of the most common causes of ill health in industry. About 1.7 million workers are thought to be exposed to noise above levels considered safe. The 1990 Labour Force Survey suggested that around 100 000 people said that they had suffered hearing damage because of their work. The number of civil liability claims is rising despite a move away from traditional 'heavy' industries. In 1994, they represented about 80% of all occupational disease claims and about 50% of the value of all such awards.

The risks and ill-health effects

Sound or noise at high levels can cause permanent hearing damage. The risk depends on the noise levels and how long people are exposed to them. Working in high noise can also make problems worse to those suffering from poor hearing due to age or illness.

Workers with damaged hearing complain of being isolated, frustrated and misunderstood. Age

is no protection - the young can be damaged as easily as the old. Once ears have been damaged by noise, there is no cure. There is no effective treatment and hearing aids are only of limited use. People can also suffer from tinnitus, a constant ringing in the ears that can cause unending suffering. Other effects may include increased stress, reduced efficiency and disturbed sleep.

Why employers should take action

The Noise at Work Regulations 1989 require workers to be protected from loud noise. This means that you must reduce noise levels as far as is reasonably practicable. If having done this the daily noise exposure level is 90 dB(A) or more, you must provide workers with ear protectors and mark the areas in which they should be worn.

The result of such actions is fewer hearing problems for staff, reduced risk of compensation claims, improved morale and increased productivity.

High-risk industries and processes

Workers affected come from all the major industrial sectors, principally:

- construction
- agriculture
- quarrying
- shipping and transport
- forestry
- entertainment
- drinks and packaging
- textiles
- potteries
- engineering
- glass
- rubber
- air transport
- mining
- printing
- metalworking
- steel
- woodworking
- offshore industries

The most common industrial tools and processes generating noise include:

- saws
- presses
- picks and drills
- riveting machines
- grinding
- dryers
- fans
- engines
- hammers
- fettling
- welding
- weaving
- many production lines

What you can do to prevent noise-induced hearing loss

- Follow the steps in HSE's
Health risk management guide.
- Refer to key HSE publications for more guidance
- **Regulations**
Noise guides 1&2
- **Guidance**
Noise guides 3-8
Sound solutions
see order form centre pages

C A S E S T U D I E S

How one man improved staff efficiency with a gun

A company moulding plastic components, using compressed air guns to clear powder deposits, measured noise levels of 105 dB(A) near to where employees were working. By replacing the air guns' nozzles, at £40 each, with ones reducing the turbulence within the tube, noise levels were reduced by up to 10 dB(A). The new tools were also stronger.

Generating improved profits by generating less noise

In the car industry, one company found that the noise generated during the machining of alternator end-castings was 104 dB(A). The solution was to apply, at a cost of £40, a simple damping treatment to reduce the amount of vibration. As a result, noise levels decreased by 16 dB(A). In addition, the quality of the cut improved and machining time was reduced.



MUSCULOSKELETAL DISORDERS

The problem

Musculoskeletal disorders are the largest form of work-related ill health in the UK. The Health and Safety Executive estimated the loss of 5.4 million working days in 1990 in England and Wales alone, with an estimated annual prevalence of 600 000 cases caused by work.

The risks and ill-health effects

Musculoskeletal disorders describe a variety of strain, sprain and over-use problems affecting the body's muscles and joints. The back, neck, shoulders and upper limbs are particularly at risk. Problems include everything from backache and slipped discs, to upper limb disorders, tenosynovitis, repetitive strain injury (RSI), pain, numbness, swelling and tingling in the hands and wrists. Caused or made worse by people's work, the most serious cases can result in permanent disablement if no action is taken, or action is not taken in time.

Problems are usually caused by poor workplace design. Risks come from jobs involving:

- poor working positions
- high levels of force and grip
- highly repetitive work
- difficult manual handling tasks including lifting, carrying, pushing and pulling
- too much bending, stretching or reaching
- poor working environment
- a combination of these things

Why employers should take action

The Management of Health and Safety at Work Regulations 1992, Manual Handling Operations Regulations 1992 and Health and Safety (Display Screen Equipment) Regulations 1992, require employers to assess the risks of musculoskeletal disorders and to take preventive action. Also, musculoskeletal problems cost money - from sickness absence, high staff turnover, retraining, loss of production etc. Compensation claims are increasing, and problems may affect employers' insurance premiums. Reducing health risks at work leads to reduced fatigue, improved staff motivation and increased productivity.

High-risk industries and processes

Problems affect workers in a very wide range of industries. Examples of high-risk areas include:

- construction
- retail distribution
- medical and health services
- repetitive assembly and inspection work
- utilities
- metal and electrical processing
- transport and material moving

Musculoskeletal problems can show themselves at the workplace in different ways, some more obvious than others:

- injuries to backs or limbs
- absenteeism
- poor product quality and high material waste
- frequent employee complaints and rest stops
- DIY/improvements to workstations and tools (eg seat padding)
- employees wearing bandages, splints, rub-ons, copper bracelets
- aches and pains
- low output

What you can do to prevent musculoskeletal disorders

- Follow the steps in HSE's *Health risk management guide*.
 - Refer to key HSE publications for more guidance
 - Guidance
Pain in your workplace
Manual handling - solutions you can handle
- see order form centre pages

CASE STUDIES

How one company removed their problems with a handle

Operators in a manufacturing plant manoeuvred a drum of steel wire weighing 365 kg into a machine for winding springs. There were reports of back and shoulder pain and one serious back injury. For just £20 the company made a long handle to attach to the drum making it much easier to move. The operators were happier using the handle and there have been no injuries or reports of pain since.

Solving the problems caused by a screwdriver

A worker assembling 50 manifolds per hour using a manual screwdriver began to suffer discomfort in both hands. Diagnosed as having tenosynovitis in one hand and carpal tunnel syndrome in the other, she was off work for four months. To stop this happening again, the solution was simple - for £500, a rig was fitted to hold the manifolds and a torque-controlled air screwdriver was introduced. The risk of injury has been greatly reduced, there is less material wastage and product quality has improved.



RESPIRATORY SENSITISATION

The problem

Work-related asthma is an extremely distressing and potentially life-threatening disease. About 1000 new cases occur each year as a result of breathing in substances called respiratory sensitisers. It is estimated that asthma caused by exposure to respiratory sensitisers costs the economy £50 million each year.

The risks and ill-health effects

Respiratory sensitisers are substances which, when breathed in, can trigger an irreversible allergic reaction in the respiratory system. Once this sensitisation reaction has taken place, further exposure to even the tiniest trace of the substance causes symptoms.

The symptoms are:

- asthma - attacks of coughing, wheezing and chest tightness;
- rhinitis and conjunctivitis - runny or stuffy nose and watery or prickly eyes.

Sensitisation does not normally take place right away. It generally happens after several months or even years of breathing in the sensitiser.

Once a person is sensitised, however, symptoms can occur either immediately they are exposed to the sensitiser or several hours later. If the symptoms are delayed, they are often most severe in the evenings or during the night, so workers may not realise that it is their work making them ill. Once a person is sensitised, continued exposure can result in permanent lung damage.

Why employers should take action

Respiratory sensitisers are subject to the Control of Substances Hazardous to Health (COSHH) Regulations 1994. This means you are obliged to prevent or, where this is not possible, control employees' exposure to these substances. By doing so you are preventing absence through sickness, loss of production and high staff turnover.

High-risk industries and processes

The majority of cases of occupational asthma occur as a result of exposure to just six agents. These occur in a variety of industries:

INDUSTRY	HAZARDOUS AGENT
vehicle spraying and foam manufacturing	isocyanates
bakeries, grain handling at docks, milling, malting	flour/grain/hay
soldering, electronic assembly	soldering flux
research, education	laboratory animals
sawmilling, woodworking	wood dusts
curing of epoxy resins	some glues/resins

What you can do to prevent occupational asthma

- Follow the steps in HSE's *Health risk management guide.*
- Refer to key HSE publications for more guidance
- **Regulations**
The Control of Substances Hazardous to Health Regulations 1994
- **Guidance**
Preventing asthma at work Respiratory protective equipment - a practical guide for users
- **Video**
A matter of life and breath
- see order form centre pages

C A S E S T U D Y

How clearing the air at work helped save a factory

Two workers from an electroplating factory had symptoms suggestive of occupational asthma. Diagnosis was confirmed by lung-function tests in the workplace but no causative agent was apparent on initial enquiries. Then a worker produced a safety data sheet describing a lacquer containing 7% isophorone diisocyanate. The Health and Safety Executive then visited the factory and confirmed that isocyanates were being used and the employer was exceeding the maximum exposure limit. On HSE's advice the employer installed extraction equipment which has dramatically improved the levels of isocyanate in the working environment. However, the two workers who had become sensitised were no longer able to carry on working in the factory, as their symptoms recurred upon exposure to isocyanates. The first worker took early retirement on medical grounds and has received compensation for occupational asthma, while the second worker has changed employment and has applied for compensation.



WHERE TO GO FOR HELP

Health risk management

Health risk management, a guide produced by HSE especially for managers in small and medium-sized firms, is full of practical advice based on the experience of owners and managers. The guide should convince employers that managing work-related health risks need not be difficult; they can do it successfully, and the results will benefit both employees and their business as a whole. The guide costs £6.50 from HSE Books and good booksellers.

HSE also produces a comprehensive range of publications including guidance, leaflets and newsletters which are also available from HSE Books. There is an order form in the centre pages of this booklet.

HSE Books

PO Box 1999, Sudbury, Suffolk CO10 6FS.
Tel: 01787 881165
Fax: 01787 313995

Other health and safety enquiries

Ring HSE's Infoline 0541 545500 or write to HSE Information Centre, Broad Lane, Sheffield S3 7HQ

HSC Newsletter

Published six times a year by the Health and Safety Commission providing a single source of authoritative information to keep you up-to-date with UK and European health and safety issues. Available on subscription from HSE Books

Films and videos

CFL Vision, PO Box 35, Wetherby LS23 7EX Tel: 01937 541010
See order form centre pages.

HSE Autofax

An immediate fax-back service of HSE's most popular free leaflets available from a phone connected to a fax machine on: 0839 060606

Internet

HSE's home page on the World Wide Web is located at
[http://www.open.gov.uk/
hse/hsehome.htm](http://www.open.gov.uk/hse/hsehome.htm)

HSE Offices

HSE covers factories, building and construction sites, farms, mines, quarries, fairgrounds, railways, chemical plant and other places where work activity is carried out. HSE Office addresses are on the following pages.

Local authority environmental health departments

Local authorities cover shops, some warehouses, most offices, leisure and consumer services, hotels, restaurants and places of worship. The address and phone number of your local environmental health department is in the telephone book or from the Citizens Advice Bureau.

Other sources of help

Health and safety advice can also be obtained from your trade association, employer association and appropriate occupational health specialists.



HSE OFFICES

South West

Inter City House
Mitchell Lane
Victoria Street
Bristol BS1 6AN
Telephone: 0117 988 6000

South

Priestley House
Priestley Road
Basingstoke
Hants RG24 9NW
Telephone: 01256 404000

South East

3 East Grinstead House
London Road
East Grinstead
West Sussex RH19 1RR
Telephone: 01342 334200

London North

Maritime House
1 Linton Road
Barking
Essex IG11 8HF
Telephone: 0181 235 8000

London South

1 Long Lane
London SE1 4PG
Telephone: 0171 556 2100

East Anglia

39 Baddow Road
Chelmsford
Essex CM2 0HL
Telephone: 01245 706200

Northern Home Counties

14 Cardiff Road
Luton
Beds LU1 1PP
Telephone: 01582 444200

East Midlands

5th floor, Belgrave House
1 Greyfriars
Northampton NN1 2BS
Telephone: 01604 738300

West Midlands

McLaren Building
35 Dale End
Birmingham B4 7NP
Telephone: 0121 607 6200

Wales

Brunel House
2 Fitzalan Road
Cardiff CF2 1SH
Telephone: 01222 263000

Marches

The Marches House
Midway
Newcastle-under-Lyme
Staffs ST5 1DT
Telephone: 01782 602300

North Midlands

1st floor, The Pearson Building
 55 Upper Parliament Street
 Nottingham NG1 6AU
 Telephone: 0115 971 2800

South Yorkshire and Humberside

Sovereign House
 110 Queen Street
 Sheffield S1 2ES
 Telephone: 0114 291 2300

West and North Yorkshire

8 St Paul's Street
 Leeds LS1 2LE
 Telephone: 0113 283 4200

Greater Manchester

Quay House
 Quay Street
 Manchester M3 3JB
 Telephone: 0161 952 8200

Merseyside

The Triad
 Stanley Road
 Bootle Merseyside L20 3PG
 Telephone: 0151 479 2200

North West

Victoria House
 Ormskirk Road
 Preston PR1 1HH
 Telephone: 01772 836200

North East

Arden House
 Regent Centre
 Gosforth
 Newcastle-upon-Tyne NE3 3JN
 Telephone: 0191 202 6200

Scotland East

Belford House
 59 Belford Road
 Edinburgh EH4 3UE
 Telephone: 0131 247 2000

Scotland West

375 West George Street
 Glasgow G2 4LW
 Telephone: 0141 275 3000



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Printed and published by the Health and Safety Executive

MISC069

9/96

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GOOD HEALTH IS GOOD BUSINESS QUESTIONNAIRE

To help us to help you, please complete and return this questionnaire to the address overleaf. Postage is free. Circle number as appropriate.

Number of employees in your organisation:

1-19 20-49 50-99 100-199 200-499 500+

Industry section Manufacturing Retail Service

Other (please specify) _____

Did you find this guide?

Interesting **1 2 3 4** Dull as ditchwater

Was the text?

Clear and straightforward **1 2 3 4** Difficult to understand

Did you find the information in the publication?

Very useful **1 2 3 4** Not useful

Was the publication?

Well presented **1 2 3 4** Poorly presented

Are you going to take any action to look at health risks in your workplace as a result of reading the publication?

Yes No

Did the publication contain the information you needed?

Yes No

If No, what other information would you like it to contain?

What changes would you like to see?

Any other comments?

Thank you for taking the time to answer these questions

GOOD HEALTH IS GOOD BUSINESS

FIRST FOLD

THIRD FOLD

SECOND FOLD

BUSINESS REPLY SERVICE
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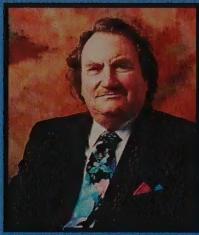
Good Health is Good Business Dept
Health and Safety Executive
205 Daniel House
Trinity Road
Bootle
Merseyside L20 3QY

FOURTH FOLD



Tuck A into B to form envelope
Please do not staple or glue





“All too often people are made ill by their work. It is a fundamental of business to take care of your people's health and safety so that they can take care of you. Well run businesses are invariably happy and healthy ones and profitable as well. HSE's Good Health is Good Business campaign to help you manage work-related risks to health is good for all of us and has my enthusiastic support.”

John Harvey-Jones

SIR JOHN HARVEY-JONES MBE